

(FILE 'HOME' ENTERED AT 14:11:55 ON 16 JUL 2003)

FILE 'CAPLUS, USPATFULL, JAPIO, EUROPATFULL' ENTERED AT 14:12:14 ON 16
JUL 2003

L1 3 S POSITIVE (3W) ANTIREFLECTIVE
L2 10370 S ANTIREFLECTIVE
L3 8456 S ACID LABILE OR ACID CLEAVABLE OR ACID CLEAVING
L4 121 S L2 AND L3
L5 3 S (ACID LABILE OR ACID CLEAVABLE OR ACID CLEAVING) (10A) ANTIRE

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L Number	Hits	Search Text	DB	Time stamp
1	20	antireflective near3 (photoacid or onium or sulfonium)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/16 13:53
2	24	positive near3 antireflective	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/16 13:53
3	17	(antireflective near3 (photoacid or onium or sulfonium)) and (positive near3 antireflective)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/16 14:00
4	0	positive adj antireflective	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/16 14:00
5	5	positive adj3 antireflective	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/16 14:00

L Number	Hits	Search Text	DB	Time stamp
3	4	(antireflective near5 (imaging or imageable or photoimaging or photoimageable)) and (antireflective near5 (developable or developing))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/17 18:56
1	51	antireflective near5 (imaging or imageable or photoimaging or photoimageable)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/17 18:57
2	26	antireflective near5 (developable or developing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/17 19:35

- ☒ (0) (antireflective near15 (acid adj cleaving or acid adj cleavable or acid adj labile))
- ☒ Saved
- ☒ (20) antireflective near3 (photoacid or onium or sulfonium)
- ☒ (24) positive near3 antireflective
- ☒ (17) (antireflective near3 (photoacid or onium or sulfonium)) and (positive near3 antireflective)
- ☒ (0) positive adj antireflective
- ☒ (5) positive adj3 antireflective
- ☒ (1226) 430/271.1.ccls.
- ☒ (4770) acid adj (labile or cleaving or cleavable)
- ☒ (47) 430/271.1.ccls. and (acid adj (labile or cleaving or cleavable))
- ☒ (0) (antireflective near5 (binder or polymer)) near5 (acid adj cleaving)
- ☒ (0) (antireflective near5 (binder or polymer)) near5 (acid adj cleavable)
- ☒ (1) (antireflective near5 (binder or polymer)) near5 (acid adj labile)
- ☒ (2) positive adj working adj3 antireflective
- ☒ (2) antireflective near15 (acid adj cleaving or acid adj cleavable or acid adj labile)
- ☒ Favorites

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=> s positive (3w) antireflective
L1 3 POSITIVE (3W) ANTIREFLECTIVE

=> d 1-3 bib kwic

L1 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS
AN 2003:532217 CAPLUS
TI **Positive**-working photoimageable bottom **antireflective**
coating
IN Oberlander, Joseph E.; Dammel, Ralph R.; Ding-Lee, Shuji; Neisser, Mark
O.; Toukhy, Medhat A.
PA USA
SO U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 2003129531	A1	20030710	US 2002-42532	20020109
PRAI	US 2002-42532		20020109		
TI	Positive -working photoimageable bottom antireflective coating				

L1 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS
AN 2002:104740 CAPLUS
DN 136:158856
TI Antireflective coating compositions
IN Trefonas, Peter, III; Docanto, Manuel; Pavelchek, Edward K.
PA Shipley Company LLC, USA
SO Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	EP 1178354	A1	20020206	EP 2001-306538	20010727
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2002031729	A1	20020314	US 2001-918399	20010730
	JP 2002072489	A2	20020312	JP 2001-231972	20010731
PRAI	US 2000-222140P	P	20000731		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT Antireflective films
Positive photoresists
(antireflective coating compn. contg. basic compd. to reduce
notching of overcoated photoresist release image)

L1 ANSWER 3 OF 3 USPATFULL
 AN 2003:187742 USPATFULL
 TI **Positive**-working photoimageable bottom **antireflective**
 coating
 IN Oberlander, Joseph E., Phillipsburg, NJ, UNITED STATES
 Dammel, Ralph R., Flemington, NJ, UNITED STATES
 Ding-Lee, Shuji, Branchburg, NJ, UNITED STATES
 Neisser, Mark O., Whitehouse Station, NJ, UNITED STATES
 Toukhy, Medhat A., Flemington, NJ, UNITED STATES
 PI US 2003129531 A1 20030710
 AI US 2002-42532 A1 20020109 (10)
 DT Utility
 FS APPLICATION
 LREP CLARIANT CORPORATION, ATTENTION, INDUSTRIAL PROPERTY DEPT., 70 MEISTER
 AVENUE, SOMERVILLE, NJ, 08876
 CLMN Number of Claims: 47
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 1241
 TI **Positive**-working photoimageable bottom **antireflective**
 coating
 AB The present invention relates to a novel absorbing, photoimageable and
 aqueous developable **positive**-working **antireflective**
 coating composition comprising a photoacid generator and a polymer
 comprising at least one unit with an acid labile group and. . .
 process for using such a composition. The present invention also relates
 to a novel absorbing, photoimageable and aqueous alkali developable
positive-working **antireflective** coating composition
 comprising a polymer comprising at least one unit with an acid labile
 group, a dye and a photoacid. . . to a novel process for forming a
 positive image with a positive photoresist and a novel photoimageable
 and aqueous developable **positive**-working
antireflective coating composition, where the antireflective
 coating comprises a polymer comprising an acid labile group. The
 invention further relates to such. . .
 SUMM [0011] The novel approach of the present application is to use an
 absorbing, photoimageable **positive** working bottom
antireflective coating that can be developed by an aqueous
 alkaline solution, rather than be removed by dry etching. Aqueous
 removal of. . .
 SUMM [0019] The novel antireflective composition of the present invention
 relates to a photoimageable, aqueous alkali developable,
positive-working **antireflective** coating that is imaged
 with the same wavelength of light as is used to expose the positive
 photoresist, and thus. . .
 SUMM [0020] The present invention relates to a **positive** bottom
 photoimageable **antireflective** coating composition which is
 capable of being developed in an aqueous alkaline developer and which is
 coated below a **positive** photoresist, where the
antireflective coating composition comprises a photoacid
 generator and a polymer comprising at least one unit with an acid labile
 group and. . .
 SUMM [0021] The invention also relates to a **positive** bottom
 photoimageable **antireflective** coating composition which is
 capable of being developed in an aqueous alkaline developer and which is
 coated below a **positive** photoresist, where the
antireflective coating composition comprises a photoacid
 generator, a dye and a polymer comprising at least one unit with an acid
 labile. . .
 SUMM [0022] The invention also relates to a **positive** bottom
 photoimageable **antireflective** coating composition which is
 capable of being developed in an aqueous alkaline developer and which is
 coated below a **positive** photoresist, where the

antireflective coating composition comprises a polymer comprising at least one unit with an acid labile group. The invention further relates to. . .

SUMM [0029] The present invention relates to a novel absorbing, photoimageable and aqueous developable **positive-working antireflective** coating composition comprising a photoacid generator and a polymer comprising at least one unit with an acid labile group and. . . process for using such a composition. The present invention also relates to a novel absorbing, photoimageable and aqueous alkali developable **positive-working antireflective** coating composition comprising a polymer comprising at least one unit with an acid labile group, a dye and a photoacid. . . relates to a process for using such a composition. The invention also relates to a novel photoimageable and aqueous developable **positive-working antireflective** coating composition, comprising a polymer comprising an acid labile group. The invention further relates to a process for using such. . .

SUMM . . . polymer soluble in the aqueous alkali developing solution. A subsequent developing step then dissolves the exposed regions of both the **positive** photoresist and the **antireflective** coating, leaving the substrate clear for further processing.

CLM What is claimed is:

1. A **positive** bottom photoimageable **antireflective** coating composition which is capable of being developed in an aqueous alkaline developer and which is coated below a **positive** photoresist, where the **antireflective** coating composition comprises a photoacid generator and a polymer comprising at least one unit with an acid labile group and. . .
15. A **positive** bottom photoimageable **antireflective** coating composition which is capable of being developed in an aqueous alkaline developer and which is coated below a **positive** photoresist, where the **antireflective** coating composition comprises a photoacid generator, a dye and a polymer comprising at least one unit with an acid labile. . .
29. A **positive** bottom photoimageable **antireflective** coating composition which is capable of being developed in an aqueous alkaline developer and which is coated below a **positive** photoresist, where the **antireflective** coating composition comprises a polymer comprising at least one unit with an acid labile group.

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